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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,883	01/25/2002	Shigeru Futakami	01165.0851	5454

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EXAMINER

MATHEWS, ALAN A

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/054,883	Applicant(s) FUTAKAMI ET AL.	
	Examiner Alan A. Mathews	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-25-02 (prelim amdt).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,11-13,15,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 4,7-10 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1-25-02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to in that on lines 3 and 4, “during said optical shutter and said photosensitive object move relatively” is not grammatically correct.

Claim Rejections - 35 USC § 112

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 15, lines 2 and 3, “starting position of the exposure onto said photosensitive object” is vague. Is the expression “starting position” describing the “exposure”, or is “starting position” describing the position of the photosensitive object? If “starting position” is describing “exposure”, it is not clear what a starting position of an exposure means.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 5, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese patent document 4-337706 A (cited on Applicant's PTO 1449). The Japanese patent document 4-337706 A discloses in figure 1 and the Abstract a light source 4 and an optical shutter 9. The abstract states that element 9 is an LCD with a pattern. This, in effect, is an optical shutter, since a computer 35 optimizes the driving voltage of LCD 9. The photosensitive object 2 moves relative to the optical shutter 9. Photo detector 11 detects exposure light which exposes the photosensitive object 2.

5. Claims 1, 2, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Choi (U. S. Patent No. 5,796,466). Choi discloses in figure 4 and column 4, lines 13-42, a light source 2. Image display 17 (LCD) generates a variable shape between light diffusing portion 4 and the film 5. Therefore, 17 is effectively an optical shutter. Element 16 is a photodetector which inputs a signal to image processor 15.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1, 3, 5, 6, 11-13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U. S. Patent No. 6,330,397) in view of either the Japanese patent document 4-337,708 A (cited on Applicant's PTO-1449) or Choi (U. S. Patent No. 5,796,466). Johnson et al. discloses in figures 1 and 2 and column 8, lines 13-34, a light source 104 such as LEDs for emitting colored light (R, G, and B). Liquid crystal shutter (LCS) 114 is the optical shutter for exposing photosensitive object 500 by controlling a transmission of the light from light source 104. With respect to claim 16, Johnson et al. discloses linear film speed variations in column 18, lines 1-18, and figure 26. With respect to claim 17, figures 1 and 24 disclose a pod 506 of developing fluid for the instant film 500. Thus, Johnson et al. discloses the invention except for disclosing a photo detector outputting a signal by detecting the exposure light which exposes the photosensitive object. The Japanese patent document 4-337,708 A discloses in the abstract that photo detector 11 detects the quantity of exposure light which exposes the photosensitive object 2. The computer 35 then optimizes the driving voltage of LCD 9 with the photo detector output. Choi discloses element 16 which is a photodetector which inputs a signal to image processor 15. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to Johnson et al. with a photodetector outputting a signal by detecting the exposure light which exposes the photosensitive object in view of either the Japanese patent document 4-337,708 A or Choi for the purpose of improving control of the proper light exposure and thus producing a better final product.

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8. Claims 1-3, 5, 6, 11-13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (U. S. Patent No. 6,330,397) in view of either Tokuda (U. S. Patent No. 5,815,244) or Terashita (U. S. Patent No. 5,719,661). Johnson et al. discloses in figures 1 and 2 and column 8, lines 13-34, a light source 104 such as LEDs for emitting colored light (R, G, and B). Liquid crystal shutter (LCS) 114 is the optical shutter for exposing photosensitive object 500 by controlling a transmission of the light from light source 104. With respect to claim 16, Johnson et al. discloses linear film speed variations in column 18, lines 1-18, and figure 26. With respect to claim 17, figures 1 and 24 disclose a pod 506 of developing fluid for an instant film. Thus, Johnson et al. discloses the invention except for disclosing a photo detector outputting a signal by detecting the exposure light which exposes the photosensitive object and having the photo detector be lower than the photosensitive element (claim 2). Tokuda discloses in figure 1 and column 4, lines 31-37, a photo detector 23 below photosensitive element 37 for the purpose of controlling the exposure and thus improving the final product. Terashita discloses in figure 5 and column 23, lines 4-14, a photo detector 28 below photosensitive element 26 for the purpose of controlling the exposure and thus improving the final product. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide Johnson et al. with a photo detector below the photosensitive element for the purpose of controlling the exposure better and thus producing a better final product in view of either Tokuda or Terashita.

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Allowable Subject Matter

9. Claims 18-20 are allowed. Claims 4, 7-10, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner cannot ascertain what is meant by claim 15, and therefore the Examiner cannot make a determination of the patentability of claim 15.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Masubuchi et al. (U. S. Patent No. 6,233,036) is cited to show in figures 1A and 1B a light source 110 (LED) and an optical shutter 150 (liquid crystal shutter or LCS) and a photosensitive object 500. The patents to Takimoto and Masubuchi et al. (U. S. Patent No. 6,262,757) are cited to show other optical printers.

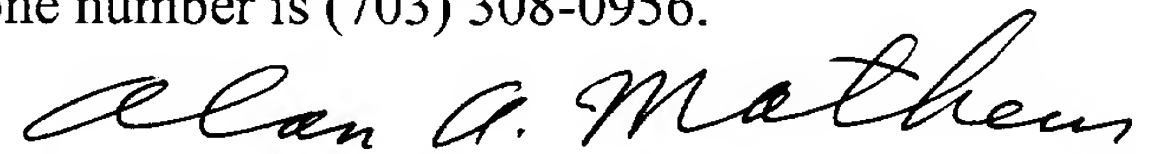
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (703) 308-1706. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703) 308-2847. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in cursive script, reading "Alan A. Mathews".

Alan A. Mathews
Primary Examiner
Art Unit 2851

AAM
July 10, 2003